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ECONOMIC TRENDS

THE PRINCE EDWARD ISLAND MANUFACTURING EMPLOYMENT SURVEY

Preface

This issue of Economic Trends presents the results of a series of surveys of employment in the manufacturing industry on Prince Edward Island conducted by the Government of Prince Edward Island during the past six years. The survey has been held in order to provide up-to-date and more comprehensive information for this important sector than is otherwise available through Statistics Canada's publications. This is in no way intended as a criticism of Statistics Canada's efforts. It might also be noted that Statistics Canada employs a somewhat more stringent definition of manufacturing activity thus reducing significantly their coverage of firms by comparison with our own survey.

For further information and comments concerning this report and the survey generally, please contact Charlotte Holland, 892-4168, Economics, Statistics and Fiscal Analysis Division.

Finally, one should note that the reference year 1982 witnessed the worst economic conditions nationally since the 1930's. Thus in 1982 manufacturing was depressed generally, and this is reflected in the most recent survey results.

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1. Introduction

The Manufacturing Sector plays an important role in the overall economy of Prince Edward Island. In 1981 manufacturing accounted for 7.2 per cent of the total Provincial Gross Domestic Product valuing $63 million. The Manufacturing Industries have provided employment for a large number of Islanders, particularly in rural areas.

The need for up-to-date employment statistics on the Prince Edward Island Manufacturing Industry resulted in the Prince Edward Island Department of Development conducting a Manufacturing Employment Survey in March 1979, thus obtaining general employment figures for each firm for the 1978 calendar year. This employment survey was carried out again in 1981 and 1983 by the Economics, Statistics and Fiscal Analysis Division of the P.E.I. Department of Finance and Tourism. The 1981 survey obtained employment data for the 1980 calendar year, while the 1983 survey collected 1982 employment data.

This report summarizes the results of these three surveys. This paper commences with a discussion of the objectives of these surveys, followed by a detailed methodology. The results of the survey are discussed under the following subject areas. First, the response rate of the Surveys. Secondly, analysis of the actual survey results with some discussion on the number of firms responding to the questionnaire by selected Standard Industrial Classifications and on the female, male, full-time and part-time employment. There is some discussion on peak and non-peak employment periods. Thirdly, a look at the ten largest employing firms from the 1983 survey, discussing full-time, part-time, male and female employment. This area also includes a section on peak and non-peak employment. The fourth subject area consists of a comparison of Statistics Canada's 1980 manufacturing data with the results of the 1981 Manufacturing Employment Survey (that survey obtained 1980 employment data). This Section includes a comparison of the number of establishments by selected Standard Industries Classification groups, as well as some comparison of employment figures for these groups.

This report also includes a brief discussion of methodology problems encountered.

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2. Objectives

The overall objective of the 1979, 1981 and 1983 Prince Edward Island Manufacturing Employment Surveys was to collect up-to-date figures to assist in analysis of the employment situation, within the Prince Edward Island Manufacturing Industry. Other sources of manufacturing employment statistics for Prince Edward Island provide very limited data and are not up-to-date.

3. Methodology

The 1979 list of manufacturing establishments was compiled using the Prince Edward Island Trade Directory from the Prince Edward Island Market Development Centre, the Business Register from Statistics Canada and was supplemented by entries from the Prince Edward Island Department of Industry, Industrial Enterprises Incorporated and the Federal Department of Regional Industrial Expansion. The list of establishments used in subsequent years was compiled from this list of establishments and updated using the Prince Edward Island Trade Directory. We again contacted the Prince Edward Island Department of Industry, Industrial Enterprises Incorporated and the Federal Department of Regional Industrial Expansion to assist us in obtaining names of new firms not on the list and in eliminating those firms from the survey who were no longer in business.

Based on the list of manufacturing establishments the manager of each firm was contacted by telephone to respond to the survey questionnaire. One questionnaire was completed for each firm that was contacted. Each firm was asked whether they were in operation two years ago, in order to determine whether it was a new firm since the last survey was taken. We then asked each firm if the number of people employed in their firm varies due to seasonality, this question was used to assist us in the responses we received to the following questions, which asked the average monthly employment figures showing male, and female on a full-time and part-time basis for the last full calendar year. This data was then compiled for each firm and grouped according to the Standard Industrial Classification of each firm (S.I.C.).

The one question always raised about a survey is, How accurate are the results?

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4. Response Rate of the Survey

There are two methods which can be used to judge the accuracy of a sample to the total population. One method is to examine the total number of firms we received responses from relative to the total number of firms contacted.

In the 1979 survey there were a total of 237 manufacturing firms on Prince Edward Island (according to our list) and 207 firms responded to the questionnaire, a response rate of 87.3 per cent. In the 1981 survey there were a total of 319 firms engaged in manufacturing and 286 firms responded to the questionnaire, a response rate of 89.7 per cent. In the 1983 survey there were 305 manufacturing firms on Prince Edward Island and 264 firms responded to the questionnaire, a response rate of 86.6 per cent. Several reasons explain why data was not obtained for the remaining firms. Some firms were not in full operation at the time of the survey as they were starting a new business or their business was inactive at the time of the survey and they were planning to start up again in the near future, and thus there was no indication of employee numbers for those firms. Some could not be contacted as they did not have a telephone number. Some were unable to be contacted after several tries, as they were not at home. Some refused to participate in the survey. (5 of 305 in 1983).

The second method used to calculate a response rate is to compare the number of employees obtained from this survey with employee statistics in other surveys that reflect the total population. The Labour Force Survey estimates (for the Manufacturing Industry) and the Annual Census of Manufacturing are two other sources of manufacturing employment statistics. Table 1 below illustrates the average number of employees in the Manufacturing Industry from the above mentioned sources.

Table 1

Total Number of Employees in Manufacturing Industries

for 1978, 1980 and 1982, P.E.I.

	1978	1980	1982
P.E.I. Manufacturing Employment Survey	3,633	4,195	3,941
Census of Manufacturing	2,781	2,980	n/a
Labour Force Survey	4,000	4,000	3,000

Source: Statistics Canada, Labour Force Survey and Census of Manufacturing. P.E.I. Manufacturing Employment Survey

Figures in Table 1 indicate the Labour Force Survey compares closely with the results of the Prince Edward Island Manufacturing Survey in 1978 and 1980. The Labour Force Survey figures are rounded to thousands and if we round the results for 1978 and 1980 from our survey they will also indicate employment of 4,000. The 1982 figures can only be compared with the Labour Force Survey and the 3,000 figure from the Labour Force Survey could indicate employment between 2,500 and 3,499 although already the 1982 figure from our survey is higher than the Statistics Canada figure. The figures for 1978 and 1980 from the Census of Manufacturing are lower than our figures, which we expected as there are some firms being missed by that survey, especially small operators. This will be discussed in more detail in the latter part of this report.

5. Number responding to the questionnaire

Table 2 illustrates the number of firms responding to the survey questionnaire by S.I.C. groups by year.

Table 2 shows the largest responding group to be Food and Beverage Industries. In 1978 31.4 per cent of the firms responding were from this group while in 1980 there were 29.7 per cent and in 1982 32.2 per cent. The second largest major industry group was Wood Industries. In 1978 24.2 per cent of responses were from this group while in 1980 there were 24.5 per cent and 23.5 per cent in 1982.

At the finer industry breakdown, it appears that the Sawmill, Planing and Shingle Mills account for the most returns followed by the Fish Products Industry.

Comparing the number of firms responding to the questionnaire in the same industry group over the three survey years, there were only 5 S.I.C. groups showing a decrease in number between 1978 and 1982.

The total number of manufacturing firms increased by 34.6 per cent from 237 in 1978 to 319 in 1980 and decreased by 4.4 per cent in 1982 to number 305.

6. Number of Employees by Industry

Table 3 displays statistics from our Survey on the average number of employees per month for Total Manufacturing and selected Manufacturing Industry groups. Due to confidentiality reasons not all Industry groups are shown here. Figures are

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Table 2

NUMBER OF MANUFACTURING FIRMS RESPONDING TO QUESTIONNAIRE

	1978	1980	1982
Food and Beverage Industries			
Meat and Poultry Products Industries	8	9	10
Fish Products Industry	20	28	29
Fruit and Vegetable Processing Industry	7	8	8
Dairy Products Industry	14	13	13
Flour, Cereal and Feed Industries	11	19	17
Bakery Products Industries	4	7	6
Other Food Products Industry	-	-	1
Beverage Industry	1	1	1
Total Food and Beverage Industries	65	85	85
Rubber and Plastic Products Industries	0	1	1
Leather Industries	2	3	1
Textile Industries (Including Spun Yarn and Woven Cloth Industries)	4	4	4
Clothing Industries (Including Knitting Mills)	3	4	1
Wood Industries			
Sawmills, Planing and Shingle Mills	35	46	37
Sash Door and Other Millwork Plants	8	14	17
Miscellaneous Wood Industries	7	10	8
Total Wood Industries	50	70	62
Furniture and Fixtures Industries	6	15	11
Printing, Publishing and Allied Industries	14	19	18
Metal Fabricating Industries	13	22	21
Machinery Industries	14	12	10
Transportation Equipment Industries			
Motor Vehicle Parts and Accessories	2	2	2
Boat, Shipbuilding and Repairs	12	10	10
Total Transportation Equipment Industries	14	12	12
Electrical Products Industries	2	2	2
Non-Metallic Mineral Products Industries			
Clay (Stone) Products Manufacturers	1	2	2
Other Non-Metallic Mineral Products	8	14	11
Total Non-Metallic Mineral Products Industries	9	16	13
Chemical and Chemical Products Industries	7	8	8
Miscellaneous Manufacturing Industries	4	13	15
Total All Manufacturing Industries	207	286	264

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Table 3

AVERAGE NUMBER OF EMPLOYEES PER MONTH, P.E.I. MANUFACTURING INDUSTRY

	1978	1980	1982
Food and Beverage Industries			
Fish Products Industry	912	1,038	918
Fruit and Vegetable Processing Industry	602	401	571
Dairy Products Industry	263	336	329
Bakery Products Industries	17	86	74
Total Food and Beverage Industries	2,250	2,329	2,335
Textile Industries (Including Spun Yarn and Woven Cloth Industries	95	82	65
Wood Industries			
Sawmills, Planing and Shingle Mills	86	146	114
Sash, Door and Other Millwork Plants	111	186	125
Miscellaneous Wood Industries	86	99	58
Total Wood Industries	283	421	297
Furniture and Fixtures Industries	25	42	36
Printing, Publishing and Allied Industries	231	259	250
Metal Fabricating Industries	102	155	167
Machinery Industries	170	189	145
Transportation Equipment Industries	171	133	115
Non-Metallic Mineral Products Industries	134	173	190
Chemical and Chemical Products Industries	64	74	87
Miscellaneous Manufacturing Industries	47	178	210
Total All Manufacturing Industries	3,633	4,195	3,941

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available for the major groups, but in some cases are not available for some of the sub-groups. Employment data are not shown for those Industries with fewer than three firms, or for those industries of three or more if these Industries are dominated by one or two firms. One can see that total manufacturing employment peaked in 1980 at 4,195, falling slightly to 3,941 in 1982.

According to Table 3 the Fish Products Industry accounted for the largest number of employees in each of the three years. The second largest employing industry was Fruit and Vegetable Processing, while Dairy Products Industry was the third largest. Although Sawmill, Planing and Shingle Mills was the industry with the largest number of firms responding, they only accounted for a relatively small number of employees. (Employees include working owners), because the average number of employees per firm in the Sawmill, Planing and Shingle Mills is small.

Using the data in Tables 2 and 3 we can look at the average number of employees per firm in the Manufacturing Industry for each year. In 1978 there were 207 firms responding to the survey questionnaire and recorded total employment of 3,633, an average of 17.6 employees per firm. In 1980 there were 286 firms responded, having total employment of 4,195, an average of 14.7 employees per firm. In 1982, 264 firms responded with total employment of 3,941, an average of 14.9 employees per firm.

Comparing data by individual S.I.C. groups, there were five groups whose average number of employees per firm for each year were higher than the average for the Total Manufactuirng Industry group. These five groups were, Fish Products Industry, Fruit and Vegetable Processing Industry, Dairy Products Industry, Total Food and Beverage Industry and Textile Industries (including spun yarn and woven cloth industries). The Machinery Industries group exceeded the total Manufacturing Industry group for the average number of employees per firm in 1980 only.

7. Peak and Non-Peak Employment

Although the average number of employees per firm may vary from year to year, employment data may also vary for one firm within a given year, due to the seasonal nature of some jobs.

Table 4 illustrates the average number of employees by selected Industry groups for peak and non-peak Employment Periods. This table was constructed to demonstrate the seasonal fluctuations in employment, within a given year. The Peak employment period was defined to include the following five months: May, June, July, August and September (as the late

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TABLE 4

AVERAGE MONTHLY NUMBER OF EMPLOYEES P.E.I. MANUFACTURING INDUSTRY

FOR PEAK AND NON-PEAK EMPLOYMENT PERIODS

	1978		1980		1982	
	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak
Food and Beverage Industries						
Fish Products Industry	648	1,281	565	1,702	455	1,566
Fruit & Vegetable Processing Inds.	604	600	443	343	570	573
Dairy Products Industries	250	280	323	355	310	355
Bakery Products Industries	18	16	78	96	68	84
Total Food & Beverage Industries	1,972	2,639	1,864	2,959	1,837	3,033
Textile Industries (including spun yarn and woven Cloth Industries)	95	95	84	79	70	59
Wood Industries						
Sawmills, Planing & Shingle Mills	66	116	123	177	93	142
Sash, Door & Other Millworks Plants	90	142	182	192	108	149
Miscellaneous Wood Industries	86	87	103	92	61	53
Total Wood Industries	241	344	409	460	262	344
Furniture & Fixtures Industries	25	25	42	43	36	36
Printing, Publishing & Allied Inds.	229	234	257	263	247	254
Metal Fabricating Industries	103	101	150	163	162	175
Machinery Industries	165	176	189	190	141	149
Transportation Equipment Inds.	159	187	126	144	118	111
Non-Metallic Mineral Products Inds.	121	152	134	230	161	229
Chemical & Chemical Products	48	87	57	98	68	113
Miscellaneous Manufacturing Inds.	48	45	174	185	206	214
Total All Manufacturing Industries	3,221	4,210	3,633	4,984	3,351	4,767

Non-Peak - January - April and October - December inclusive

Peak - May - September inclusive

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Spring and Summer season is the period of highest employment on Prince Edward Island). The non-peak employment period consisted of the remaining seven months (January-April and October-December).

The Fish Products Industry showed the largest fluctuations in employment levels between the peak and non-peak periods. For this sector the ratio of people employed during the peak employment period relative to those employed during the non-peak continued to increase over the three survey years. In 1978 there were 97.7 per cent more people employed in the peak period compared to the non-peak period, this increased to 201.2 per cent in 1980 and 244.2 per cent in 1982.

The Dairy Products Industry also showed increases for each year in their peak employment numbers compared to the non-peak. In 1978 peak employment was 12 per cent over non-peak employment, while in 1980 it was 9.9 per cent, rising to 14.5 per cent in 1982.

In 1978 the Bakery Products Industries demonstrated a lower ratio in the number employed during the peak period compared to the non-peak, while 1980 and 1982 showed ratios of 23.1 per cent and 23.5 per cent respectively, peak to non-peak.

Employment in Total Food and Beverage Industries for the peak period showed considerable gains 1978, 1980 and 1982 while there was a decline in employment in the non-peak periods. This increase in peak employment in Total Food and Beverage Industry is mainly attributable to the Fish Products Industry from 1978 to 1980 and Fruit and Vegetable Processing 1980 to 1982. In 1978 peak employment in Total Food and Beverage Industry was 33.8 per cent greater than non-peak employment, in 1980 it increased to 58.7 per cent and increased further to 65.1 per cent in 1982.

Other Industries showing large swings in employee numbers during the peak period compared to the non-peak period are: Sawmill, Planing and Shingle Mills, Sash, Door and other Millwork Plants, Total Wood Industry, Non-metallic Mineral Products Industries and Chemical and Chemical Products Industries.

Not all industries show increased employment during the summer period compared to the non-peak period. Fruit and Vegetable Processing experienced declines in employment during the summer over the non-peak period, in 1978 and 1980.

For some industries employment does not vary during the peak and non-peak periods. One Industry group, Furniture and Fixtures Industries showed little or no change, as 1978 and 1982 showed no change in the number employed during the peak and non-peak periods, while the 1980 peak period had one more employee than the non-peak period.

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The total of all Manufacturing Industries showed gains in the overall ratio of employment for the peak period over the non-peak period during the years surveyed. In 1978 peak employment was 30.7 per cent higher than non-peak employment, while in 1980 it was 37.2 per cent and increased to 42.3 per cent in 1982.

8. Male, Female, Full-time and Part-time Employment

In 1980 and 1982 employment data was collected for male, female, full-time and part-time employment as illustrated in Table 5, similar data was not available for 1978. Part-time employment was defined as employees who were hired to work less than a full work week for that particular firm. Some problems were encountered in defining full-time and part-time particularly in the Fish Products Industry. This problem is discussed in more detail in the Methodological Problems Section of this report.

Table 5

AVERAGE 1980 and 1982 EMPLOYMENT PER MONTH, FULL-TIME, PART-TIME, MALE AND FEMALE

	MALE			FEMALE			TOTAL		
	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total
1980 Employment	2,540	161	2,700	1,200	276	1,495	3,759	436	4,195
1982 Employment	2,421	79	2,500	1,360	81	1,441	3,781	160	3,941

One can see that between 1980 and 1982 full-time employment among females increased from 1,200 to 1,360 whereas full-time employment for Males and part-time employment for both Males and Females declined, causing a decline in total employment in Manufacturing.

In 1980 64.4 per cent of all employees in Manufacturing were male while in 1982 63.4 per cent were male. Of the total number of male employees in 1980 94 per cent were classified as full-time and 6.0 per cent were part-time. In 1982 96.8 per cent of the males were employed full-time and 3.2 per cent were employed part-time.

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Female employment accounted for 35.6 per cent of total employment in 1980 and increased to 36.6 per cent of total employees in 1982. Of the total number of female employees in 1980 81.6 per cent were employed full-time while 18.5 per cent were employed part-time. In 1982 94.4 per cent of the females were classified as full-time while the remaining 5.6 per cent were classified as part-time.

Considering total full-time and part-time employment in 1980 89.6 per cent of total employees were employed full-time and 10.4 per cent were part-time, while in 1982 95.9 per cent of total employees were full-time and 4.1 per cent were part-time.

We also used the full-time, part-time male and female data to study peak and non-peak employment periods. This data is illustrated in Table 6. The definitions of peak and non-peak periods used in the earlier section also apply to this section.

TABLE 6

AVERAGE 1980 AND 1982 EMPLOYMENT PER MONTH, FULL-TIME, PART-TIME, MALE AND FEMALE FOR PEAK AND NON-PEAK PERIODS

	MALE						FEMALE						TOTAL					
	Full-time		Part-time		Total		Full-time		Part-time		Total		Full-time		Part-time		Total	
	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak
1980 Employment	2,332	2,830	120	218	2,452	3,047	968	1,572	212	364	1,181	1,936	3,301	4,402	332	582	3,633	4,984
1982 Employment	2,200	2,731	67	96	2,267	2,826	1,008	1,854	76	87	1,084	1,941	3,207	4,584	143	183	3,351	4,767

Non-Peak - January-April and October-December inclusive

Peak - May-September inclusive

Total male employment during 1980 was 24.3 per cent higher during the peak period compared to the non-peak period, similar data for 1982 showed peak employment 24.7 per cent higher than non-peak. Male part-time and full-time employment for 1980 and 1982 also showed a larger number of employees during the peak period than during the non-peak period.

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The decline in employment 1980 to 1982 was most pronounced among part-time workers in both the peak and non-peak periods. Total female employment during 1980 and 1982 was 63.9 per cent and 79.1 per cent higher during the peak employment period compared to the non-peak.

9. Ten Largest Employing Firms in 1982

Using the average number of employees for each firm in 1982 the ten largest employing firms were chosen. Table 7 illustrates an aggregation of employment data for these ten firms showing male, female, full-time and part-time catagories.

TABLE 7

1982 AVERAGE MONTHLY EMPLOYMENT, FULL-TIME, PART-TIME, MALE AND FEMALE FOR THE TEN LARGEST EMPLOYING FIRMS ON PRINCE EDWARD ISLAND

	MALE			FEMALE			TOTAL		
	Full-time	Part-time	Total	Full-time	Part-time	Total	Full-time	Part-time	Total
1982 Employment	767	25	792	686	5	691	1,453	30	1,483

These ten firms accounted for 37.6 per cent of the total number of employees in all Manufacturing Industries. They also accounted for 48 per cent of all female employees and 31.7 per cent of all male employees. The majority of employees in the ten large firms were employed full-time. There were only 30 employees working on a part-time basis.

Average employment per firm for the ten largest was 150, approximately ten times that of Manufacturing firms in total. (Table 8).

TABLE 8

1982 AVERAGE MONTHLY NUMBER OF EMPLOYEES PER FIRM, FULL-TIME, PART-TIME, MALE AND FEMALE FOR THE TEN LARGEST EMPLOYING FIRMS AND ALL MANUFACTURING FIRMS

	Full-time	Part-time	Total	Full-time	Part-time	Total	Full-time	Part-time	Total
Ten largest employing firms	76.7	2.5	69.2	68.8	0.5	69.1	145.3	3.0	148.3
All Manufactuirng firms	9.2	0.3	9.5	5.2	0.3	5.5	14.3	0.6	14.9

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Employment within the ten firms was 53.4 per cent male and 46.6 per cent female.

Table 8 illustrates peak and non-peak employment for the ten large employing firms. This table indicates there are no change in the number of male part-time and female part-time employees during the peak period in comparison to the non-peak period. Male full-time employment was 21.1 per cent higher during the peak period in comparison to the non-peak period, while female full-time employees was 70.9 per cent greater in peak over non-peak periods.

Comparing the full time peak employment of the ten largest firms in Table 9 to similar data for all manufacturing firms in Table 6, the ten firms accounted for 31.3 per cent of the total male full-time peak employment, and accounted for 48.8 per cent of total female full-time peak employment.

TABLE 9

1982 AVERAGE MONTHLY EMPLOYMENT, FULL-TIME, PART-TIME, MALE AND FEMALE FOR NON-PEAK AND PEAK EMPLOYMENT PERIODS FOR THE TEN LARGEST EMPLOYING FIRMS ON PRINCE EDWARD ISLAND

	MALE						FEMALE						TOTAL					
	Full-time		Part-time		Total		Full-time		Part-time		Total		Full-time		Part-time		Total	
	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak
1982 Employment	705	854	25	25	730	879	529	904	5	5	534	909	1,235	1,758	30	30	1,265	1,788

Non-Peak - January-April; and October-December inclusive
Peak - May-September inclusive

10. Comparison of Statistics Canada Data and Manufacturing Employment Survey

Table 10 illustrates difference between Statistics Canada's Census of Manufacturing data and the Prince Edward Island Manufacturing Employment Survey in 1980.

The 1980 data are used for the comparison as the most recent data available from Statistics Canada in 1981, and we did not conduct a survey in 1981.

Employment data for some industries are not available from Statistics Canada or from our survey as the data are confidential.

In general there were more firms listed in each industry in the Manufacturing Employment Survey than the Statistics Canada Survey; we located 286 respondents, Statistics Canada, 152. The largest difference in the number of firms was for

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TABLE 10

COMPARISON OF 1980 DATA FROM THE MANUFACTURING EMPLOYMENT SURVEY TO STATISTICS CANADA CENSUS OF MANUFACTURING

Industry Groups	Manufacturing Employment Survey 1980 Data		Statistics Canada 1980 Census of Manufacturing	
	Number of Firms	Number of Employees	Number of Firms	Number of Employees
Food and Beverage Industries				
Meat and Poultry Products Inds.	9	X	6	X
Fish Products Industry	28	1,038	21	831
Fruit and Vegetable Processing Inds.	8	401	3	X
Dairy Products Industry	13	336	15	353
Flour, Cereal and Feed Industries	19	X	6	X
Bakery Products Industries	7	86	3	X
Beverage Industries	1	X	1	X
Total Food and Beverage Industries	85	2,329	55	2,010
Rubber and Plastic Products Inds.	1	X	1	X
Leather Industries	3	X	1	X
Textile Industries (including Spun Yarn and Woven Cloth Industries	4	82	3	X
Clothing Industries (including Knitting Mills)	4	X	1	X
Wood Industries				
Sawmill, Planing & Shingle Mills	46	146	16	29
Sask, Door and Other Millwork Plants	14	186	7	X
Miscellaneous Wood Industries	10	99	1	X
Total Wood Industries	70	421	24	162
Furniture and Fixtures Industries	15	42	7	10
Printing, Publishing and Allied Inds.	19	259	11	191
Metal Fabricating Industries	22	155	12	X
Machinery Industries	12	189	4	X
Transportation Equipment Inds.				
Motor Vehicle Parts & Accessories	2	X	X	X
Boat, Shipbuilding & Repair	10	X	X	X
Total Transportation Equipment Inds.	12	133	10	X
Electronic Products Industries	2	X	3	X
Non-Metallic Mineral Proudcts Inds.				
Clay (Stone) Products Manufacturers	2	X	0	-
Other Non-Metallic Mineral Products	14	X	6	X
Total Non-Metallic Mineral Products	16	173	6	X
Chemical and Chemical Products Inds.	8	74	6	X
Miscellaneous Manufacturing Inds.	13	178	8	X
Total All Manufacturing Industries	286	4,195	152	2,980

X Confidential

Source: Statistics Canada 1980 Census of Manufacturing, 31-203. Manufacturing Employment Survey 1980 data.

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Sawmill, Planing and Shingle Mills, and this is probably due to the large number of small operators, who can be difficult to locate. Statistics Canada had more firms listed for the Dairy Products Industry and Electronic Products Industry. The same number of firms were recorded by Statistics Canada Survey and the Manufacturing Employment Survey for Beverage Industries, and Rubber and Plastic Products Industries. These two Industries had only one firm each so due to confidentiality employment data were not available. It is not clear why Statistics Canada's number of respondents is significantly less than ours, but it appears to be found largely in the smaller firms.

The largest employing Industry for both Statistics Canada and our survey was the Fish Products Industry. From the Census of Manufacturing, the Fish Products Industry accounted for 27.9 per cent of total employment in Manufacturing, while it accounted for 24.7 per cent of total employment in the Manufacturing Employment Survey.

11. Methodological Problems

While conducting any survey one experiences methodological problems. Listed below is a discussion of those encountered while conducting and analyzing the Manufacturing Employment Survey.

The list of manufacturing firms used to conduct each survey may not have included all firms involved in manufacturing. Naturally we do not know at the time who was missed because when our lists were compiled they were complete to the best of our knowledge. Nevertheless some firms are inevitably missed, and we discovered this in due course, but the numbers are very small.

The major methodological difficulty was in the area of full-time and part-time employment. Employers were asked to indicate whether the male and female employees were working full-time or part-time. Part-time employment was defined as working less than the normal number of hours each week by the firm. For example, if a firm worked eight hours a day for five days a week, a part-time employee would be working less than forty hours a week. Some firms may have a slack period during a week where all employees may not work a full week, this is very common in the Fish Products Industry. Employees in this Industry may work forty-eight hours one week and only twenty-four hours the next week or may even

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work eight hours one day and six hours the next day, depending mainly on the amount of fish available for processing. Employees in this catagory were included as full-time for the months they were employed, as they were hired to work full weeks. If work is not available for some time during their employment, they are still on call, and must be available to return to work when called back.

Differences in interpretation of part-time work by respondents in the 1982 and 1980 surveys may have resulted in the shift in part-time employment noted previously.

Although methodological problems exist, the Manufacturing Employment Survey does provide improved statistics on employment in the Prince Edward Island Manufacturing Industry.

12. Summary and Conclusions

The Economics, Statistics and Fiscal Analysis Division, of the Prince Edward Island Department of Finance and Tourism in 1981 and 1983 conducted Manufacturing Employment Surveys, collecting data for 1980 and 1982 respectively. These surveys were a continuation of a similar survey carried out in 1979, obtain 1978 employment data, by the Prince Edward Island Department of Development. In 1979, 207 or 87.3 per cent of the firms responded to the questionnaire. In 1981, responses were received from 286 or 89.7 per cent of the firms listed, while in 1983 264 or 86.6 per cent of the firms responded.

The following is a brief summary of the main results of these three surveys.

- Total number of manufacturing firms increased by 34.6 per cent from 237 in 1978 to 319 in 1980, and decreased by 4.4 per cent in 1982 to number 305.

- Food and Beverage Industry was the largest responding group in the major classification groups, while Sawmill, Planing and Shingle Mills accounted for the largest number of respondents in the sub-groups.

- Fish Products Industry accounted for the largest number of employees for each of the three years.

- In 1978 there were an average of 17.6 employees per firm, in 1980 there were 14.7 and 14.9 in 1982.

- Fish Products Industry, Fruit and Vegetable Processing Inds., Dairy Products Industry, Total Food and Beverage Industry and Textile Industries all had above average numbers of employees per firm.

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- Employment in the total of All Manufacturing Industries showed gains in employee numbers for the peak employment period over the non-peak period.

- The Fish Products Industry showed the largest fluctuation in employment levels between the peak and non-peak periods.

- Employment for some industries did not vary between the peak and non-peak periods. One example is Furniture and Fixtures Industries.

- In 1980 64.4 per cent of the employees were male and 35.6 per cent were female. In 1982 63.4 per cent of the employees were male, while 36.6 per cent were female.

- In 1980 89.6 per cent of the total employees were employed full-time, this increased to 95.9 per cent in 1982.

- Of the total number of male employees in 1980, 94 per cent were full-time and 6 per cent were part-time. In 1982, 96.8 per cent of the males were employed full-time and 3.2 per cent were part-time.

- Of the total number of female employees in 1980, 81.6 per cent were employed full-time and 18.5 per cent were part-time. In 1982 94.4 per cent of the females were employed fulltime, while the remaining 5.6 per cent were employed part-time.

- The ten largest employing firms in 1982 accounted for 37.6 per cent of the total number of employees. They accounted for 31.7 per cent of all male employees and 48 per cent of all female employees. Their average size was 150 employees or ten times the average for all Manufacturing on P.E.I.

- 53.4 per cent of the total number of people employed by the ten largest firms were male, and 46.6 per cent were female.

- For the ten largest firms, the number of male full-time employees was 21.1 per cent higher during the peak period in comparison to the non-peak period, while female full-time employees was 70.9 per cent higher during the peak over the non-peak period.

- The ten largest firms accounted for 31.3 per cent of the total male full-time employment during the peak period, and accounted for 48 per cent of the total female full-time peak employment.

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- Statistics Canada's 1980 Census of Manufacturing data, in general showed a smaller number of firms for each industry, compared to the 1980 data in the Manufacturing Employment Survey, and smaller overall employment levels.

In conclusion the Manufacturing Employment Surveys provide both useful and pertinent information on the Prince Edward Island Manufacturing Sector. These surveys provide more detailed and up-to-date employment data by selected industries, which could not be obtained from the Statistics Canada, Census of Manufacturing.